

INVERTEBRATA

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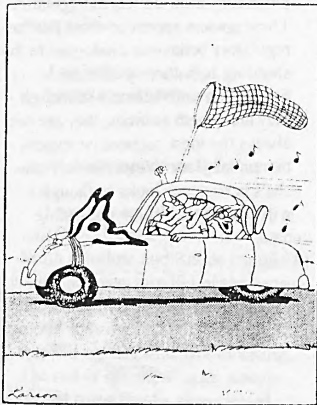
Issue 1

Tasmania's Invertebrate Newsletter

Spring 1994

♦ Welcome to the first edition of the invertebrate newsletter Mark II. Thanks to all those people who made the effort to contribute to the first issue. If you have some suggestions for improvement or inclusion please let me know and I promise I'll give it serious consideration. As this is the first newsletter the deadline ended up being extended as our mailing list increased in size and so apologies to all those punctual people. If there is anyone you know who you think might like to receive this newsletter or contribute, please ask them to send their name and address to me and they'll be included in the next mailout.

Louise McGowan
QVMAG Wellington St,
Launceston, TAS, 7250.



Around the traps

■ In the Zoology Dept. at The Queen Victoria Museum and Art Gallery (QVMAG), volunteers, interested groups and amateurs contribute to the organisation of some of the incredible backlog of the invertebrate collections. Their skills include databasing, pinning, sorting and a myriad of those necessary but sometimes

repetitive jobs. A productive and enthusiastic volunteer group has become an important part of our activities. A workday is to be held at the QVMAG on the 8th October, 1994 and if anyone is interested in offering their time please contact one of us in the QVMAG Zoology Dept

Bob "Spider" Mesibov was recently appointed as a Research Associate of the QVMAG in recognition of his high quality research into the taxonomy and biogeography of Tasmanian velvet worms, centipedes and millipedes, much of which has been supported by the Museum through the Plomley Foundation. Bob has worked himself into a very enviable position as an independent researcher with no administrative responsibilities (beyond those associated with his own activities) he has both the time and the inclination to indulge in both collecting and intellectual pursuits. He generously passes on the spoils of both activities to the museum. In the year 1993/94 this amounted to 1200 lots of specimens from the collecting and many "pearls" from the intellectual activity. In my (TJK) experience there is no better value obtainable for either the research or conservation dollar than that spent in support of Bob Mesibov.

The National Estate funded phase of Tim's project on Tasmanian native earthworms has come to an end. Project Officer Rob D'Orazio, accompanied in the field by a sequence of selfless volunteers, has been collecting, preserving and categorising earthworms for over two years.

Rob has visited over 500 sites, collected about 1 500 lots of specimens and divided them up into about 250 categories. As yet, Tim's attempts to raise funds for the next phase of the work - the taxonomy - have not been successful. Ah well, perhaps they don't really need names

as well as code numbers! Currently Tim and Rob are tidying up the earthworm database ready for computerised mapping of "species" and final reporting.

Recent exhibits developed by the Zoology dept. include the Marine Tidal Aquarium and the Live Spider Display both of which have sparked considerable interest

Brian Smith (Honorary Research Associate, QVMAG) is curating the mollusc collections and library and doing taxonomic and distributional ecological work on both marine and non-marine topics.

Brian has four current research projects running:

1. Revision of three genera of charopid land snails - project funded by ABRIS

2. Distributional survey of the common intertidal invertebrates of the Tamar River - run in conjunction with the Friends of the QVMAG

3. Compilation of a checklist of the Molluscs of Tasmania - with R.C. Kershaw

4. Generic revision of the family Rhytididae (land snails).

He will be going to central Australia in October to take part in the Horn Expedition Revisited run by the Museum of Victoria.

■ **The Wildlife Branch** (Dept. of Environment and Land Management: Parks and Wildlife Service: Resources Wildlife and Heritage Division: Wildlife Branch) is currently putting considerable effort in collating and entering Tasmanian fauna and distribution records in the TASPAS database, with a view to having as much information as possible available for land management decisions. Information from Directed Wildlife Research and WEBS programmes, DPI collection and some individual collections has been included. Invertebrate records are particularly important and Anne

McEntee (ph 002 333 751 fax 002 333 477) is very interested to hear from anyone who has records, or any other useful information. Local scientists and collectors are encouraged to contribute to and utilise the database. Recording booklets are available in this form from Mike Comfort. TASPAAWS liaison officer. 002 333 791.

■ **Sandy Beach Survey:** Alastair Richardson and Roy Swain from The Zoology Dept. at the University of Tasmania have received funding from the National Estate Grants Program 1994-95 to study the invertebrates of the upper regions of sandy beaches on the east coast. A surprising number of species forage in this zone (from mid-tide upwards), and most of them are of terrestrial origin. The project officer is Colin Shepherd who has just finished an Honours project on the sandhoppers of Fortescue Bay.

■ **Coastal Landhoppers:** That intrepid duo, Alastair Richardson and Roy Swain are hoping to complete their study of the factors limiting the inland penetration of coastal landhoppers. The coastal landhoppers are restricted to the first 100m or less inland from the shore. They have mostly western distributions, but can be found around the south east coast to the Tasman Peninsula, and also in the north east. Recent records came from their NEGP funded survey of the crustaceans and molluscs of saltmarshes, now available as a report.

■ **Roger Buttermore of The Tasmanian Museum and Art Gallery (TMAG),** is hard at work on the invertebrate zoology database. When he gets a spare minute, he also works on deep sea crustacea donated to the museum by the CSIRO Division of Fisheries. He is also monitoring the spread of the bumble bee and the European shore crab.

Elizabeth Turner is working enthusiastically with the microscopy equipment and hopes that a proposed quadra computer will soon be underway to store images of micromolluscs and spiders in the collection. Lynne Robertson is building up some fine photographic albums of details of spider features with the use of the photomicrography equipment.

Research and public education is continuing on the introduced northern pacific seastar. Displays in the Zoology gallery include an aquarium, and a new colour pamphlet has been produced to assist people with the correct identification of the seastar. Museum research has established the spawning period of the seastar in Tasmania, and specimens found during current diving surveys on marine farms have shown that the species is more widely distributed than previously documented.

Four research staff are currently employed through funding from federal sources. Margie Morrice and Brett Wolf are funded by the Feral Pests Program, Australian Nature Conservation Agency, to research the distribution and ecology of the introduced northern pacific seastar *Asterias amurensis* in SE Tasmania. Christine Matera has been funded by the FPP, ANCA for research into the endemic seastar, *Marginaster littoralis*, and is currently funded by the National Estate Grant Program to survey endemic marine invertebrates in Tas coastal waters. Lynne Robertson is funded by the NEGP to survey spiders in the NW of Tas.

■ Penny Greenslade is embarking on a project for the **Australian Heritage Commission** to nominate sites for inclusion in the National Estate list for invertebrate values in Tasmania. This is a pilot project and ten sites will be chosen. Suggestions as to priorities for sites to include would be welcomed. The project is to start shortly.

Penny will be conducting field work in Tasmania in September 1994 and February 1995. Penny can be contacted at the CSIRO Division of Entomology, GPO Box 1700, Canberra, ACT 2601. Ph (06) 246 4121 Fax (06) 246 4000 (from Sept 20th 1994) or email penny@ento.csiro.ac.

Post-grad Students


■ PhD student Robert Walsh (Uni of Tas, Zoology Dept.) is still demonstrating his masochistic tendencies in continuing his study of

the Micro-crustaceans of coastal lagoons. He is in the middle of his program looking at lagoons on the west coast (Strahan) and the north east. He is discovering a high diversity, and new records for the state, also some interesting amphipods which are too big for him, but quite acceptable to his supervisor.




■ Honours student, Colin McConll (Uni of Tas, Zoology Dept.) is having some fun with *Naucorex congrex*. This is Tasmania's only species of nauroid, a little studied family of aquatic bugs found in standing waters in the warmer parts of the state; they possess marvellous grasping forelegs. Colin's interest in them is as a model predator, and they turn out to be perfect for the job. He's been doing a lot of desk top experiments investigating predator-prey relationships, with particular success at manipulating habitat complexity.

■ Honours Student Natasha Beveridge (Uni of Tas, Zoology Dept.) is indulging in a lifelong fascination with spiders with a study of Tasmanian wolf spiders. She is mixing some field work on burrow characteristics and microdistribution with laboratory work on thermoregulation. These spiders appear to show thermoregulatory behaviour analogous to the shuttling heliothermy of many lizards, but unfortunately, although they are superb animals, they are not always the most cooperative experimental subjects. Nevertheless Natasha's persistence looks as though it will pay off with some interesting data.

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Letters

Deloraine Field Naturalists Group inc.

The Deloraine Field Naturalists Group inc. has a membership with wide ranging interests, most of which are honourable. However, early in the life of the group we were infiltrated by invertebrate proselytizers who convinced the then power base of the group to take an interest in the world of spineless wonders.

Most of the group thought this referred to politicians, but when they found themselves thrust into a research project on the giant crayfish, *Astacopsis gouldi*, they began to realise that invertebrate zoology is an area where amateurs can play an important role.

The group has looked toward the researchers to define what areas we might effectively work in while we learn. Collecting and sorting under direction has been one particularly good way for the group to gain knowledge while assisting research. Captive raising has also been suggested. We are open to suggestions, and welcome contact and interest in all areas of Natural History.

Jim Nelson
Secretary DFNG inc.

A Lepidopterists Interest

I recently had the opportunity to visit the USA and spend some time in North Carolina and Rhode Island. In doing so I was mindful of the restrictions of collecting butterflies and moths to bring back to Australia, but that did not deter me from looking. The riot of colour of large, unconcerned butterflies as they cruised through the flower beds and alighted on the ubiquitous *Buddleia* was something to make the average

Tasmanian lepidopterist salivate. Iridescent blues and brilliant yellows, coupled with the intricacies of the common camouflage colours of brown, black, grey and green continually attracted my attention, making me wish that my time in that country was not so restricted. Surely a lepidopterists paradise.

The Tasmanian butterfly varieties are, by comparison, drab and non-spectacular, being small, generally brown and inconspicuous (there are of course exceptions such as the macleay swallowtail).

The tried and true method of actual collection and field observation is still an important way to maintain and enhance an interest particularly when dealing with a climate that is not as encouraging to the more showy butterflies and moths. However the utilisation of photography aided by observation is a useful method of collecting such foreign species as those I met in the USA and this technique would be a useful tool to help promote interest in this fascinating field.

Michael Fletcher
Amateur lepidopterist

Three of the Tasmanian species are rare being known from four, three and two specimens respectively. The rarest is *Castiarina insculpta*, both known specimens of which were collected from the vicinity of Great Lake. So far, two unsuccessful collecting trips have been made to the highlands. The second specimen was collected in early March at Miena. It isn't known which native flowers the adults feed on, but most likely nectar from the flowers of *Leptospermum* sp., *Eucalyptus* sp. or *Cassinia* flowers which are abundant in the area at the end of summer.

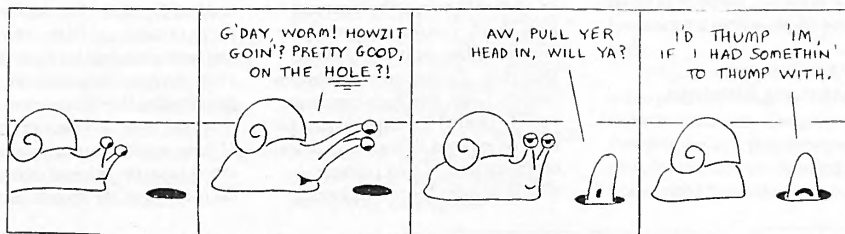
I. The beetles are about 12 *4 mm in length. The head, pronotum, ventral surface and legs are green. The elytra are green with three yellow marks on each side. One notable feature is that the apical spines of the elytra point inwards towards each other. In most other species they are parallel. I would be very interested to identify specimens from this area if they at all resemble this species. A male specimen is urgently needed so that an illustration of the genitalia, which are used for identification, can be prepared.

Shelley Barker,
Dept. of Zoology,
Uni. of Adelaide, S.A. 5005.

Have you seen.....?

I have been working on the taxonomy of Australian Buprestidae (jewel beetles) for many years and it is now well advanced with a revision of *Castiarina* -which is the largest genus with some 430 species. The genus is found throughout Australia and in parts of New Guinea.

The few Tasmanian species are interesting because most of them have converged on a common pattern of yellow markings on a green background. They form a typical Mullerian mimicry complex as it has been found that they are protected from predators by having a noxious tasting organic compound in their bodies.



Articles

Wildlife parasitology

Wildlife parasitology really needs kickstart in Tasmania! Heaven knows there are enough interesting prospects out there.

Take the impact of *Toxoplasmosis*, that cat-transmitted protozoa that kills our Tasmanian marsupials. We know it kills pademelons, Bennett's wallaby, wombats and both species of bandicoot in Tasmania. Domestic and feral cats are the sole carriers with animals in disturbed or isolated habitats most likely to succumb to the infection. By blood testing indigenous animals in remote areas and on islands for the presence of *Toxo*, antibodies we can tell if cats are present. Parks and Wildlife Service is currently looking at the impact of *Toxo*, on eastern barred bandicoots in southern Tasmania.

A few interesting beauties which need further work up are indigenous liver fluke infections in *Pseudomys higginsii*, *Rattus lutreolus*, *Potorous tridactylus* and perhaps *Antechinus swainsonii* and the tapeworm, *Dasyurotaenia robusta* in Tasmanian devils. I suspect that the fluke has a mollusc or annelid intermediate host (like the large land snail, *Caryodes*). The tapeworm is a real enigma. It was apparently quite common in devils around the turn of the century and then wasn't recorded again until 1987 (at one locality only!). As the parasite is likely to have a two-host predator-prey life cycle, the chances are it's rarity could relate to the scarcity of the intermediate host. The life cycle of the tapeworm is unknown but small mammals or macropods are likely intermediates. Interesting hey!

Chances are there are lots of new species out there. They are part of the ecosystem as much as free living non-parasitic invertebrates. Research into their lifecycles tells us about their hosts and feeding habits or behavioural associations within a habitat.

Dave Obendorf
Veterinary Pathologist

Much Worse Than 'Flu

A zoonosis is an animal disease which infects humans. Arboviruses are viruses transmitted by arthropod vectors such as biting flies, and mosquitoes.

The most widespread zoonotic arbovirus in Australia is Ross River virus, which affects literally hundreds of people annually. The resultant disease is called Epidemic Polyarthrititis. Ross River virus is now regarded as the nation's arbovirus of greatest public health importance. Formerly a subtropical infection the virus has subsequently spread to every Australian State, including Tasmania.

Investigations here to date have shown that the widely distributed coastal salt-marsh mosquito, *Aedes camptorhynchus*, is the principal vector between the marsupial reservoir hosts (mainly macropods) and humans. Ross River virus has also been isolated from pools of the fresh water species, *Aedes flavifrons*, trapped in the Bicheno area.

Anybody and everybody working or holidaying in coastal regions is at risk. The most likely time for Tasmanians to become infected is summer and autumn, and there are cases every year. Local reports of Epidemic Polyarthrititis tend to be erratic, depending on rainfall or inundation of coastal lagoons. Due to the disease's relatively long incubation period, 10-14 days, infected people are frequently well distant from the virus source before they become ill. This presents diagnostic difficulties, and leads to considerable under-reporting.

Symptoms are many and various but include a painful joint arthritis, especially of wrists, knuckles, knees and ankles, which can persist for weeks or months. About 10% of sufferers later develop a chronic fatigue syndrome, similar to the after effects of glandular fever. This can last for up to two years.

There is no specific treatment for Ross River virus disease, apart from analgesics like aspirin to alleviate joint pain. Prevention is the obvious course. Insect repellents containing DEET (Diethyl Toluamide) must be used on exposed skin surfaces to ward off mosquitoes. Outer clothing should be loose fitting and light

coloured, preferably white. Avoid risky behaviour such as barbecues at dusk adjacent to coastal lagoons and marshland.

Epidemic Polyarthrititis is an unpleasant, persistent, debilitating disease. Don't risk catching it. You'll be sorry if you do!

Tim McManus
Veterinary Extension Officer

A Cautionary Tale of Deceptive Titles and Biodiversity Blow-out

On commencing ecological studies of Tasmanian native earthworms about three years ago it was a great comfort to have a copy of "The Indigenous Earthworms (Megascolecidae: Oligochaeta) of Tasmania" by B.G.M. Jamieson (1974a) close at hand, to (as I thought) rapidly provide names for the species I was soon to be extracting from quadrats. Clearly a solid tome of 125 pages with 102 electron micrographs of setae appended compiled by Australia's foremost authority on the topic, and bearing the above title would be found to be a reliable and comprehensive treatment of the topic of the title. Inspection of the index revealed that the number of earthworm species listed for Tasmania is 48, a total count that intuitively seemed reasonable for an island the size of Tasmania.

Illusions were however shattered when with ever increasing frustration I failed to find any trace of the great majority of "species" collected during preliminary fieldwork conducted with the aim of building up a familiarity with the fauna. This provoked me to look more closely at some statistics pertaining to the quantity and nature of the material upon which the above work was based. The first hint of trouble loomed with the realisation that all the specimens included in the work came from a total of only 40 accessible localities, mostly in the south of the state. But there was worse to come. 22 of the 48 species had been described between 1888 and 1924, the remaining 26 being described by Barrie Jamieson within the paper itself. Of the early species, 11 have apparently not been re-collected since the original records and the majority of the specimens are

either lost, or in a relatively poor state of preservation. Overall, only six of the species were recorded from more than two localities and for only nine species were there more than ten specimens available for study. Even the new species described by Jamieson were seriously lacking in material, half of the species were described on the basis of either three specimens (3 species), two specimens (4 species) or just a single specimen (6 species). All this despite the fact that the external structure of native earthworms is notoriously variable, the variation arising from the degree to which the external secondary sexual characters have developed in each individual. Regrettably also, very few specimens were collected with any information about the habitat in which they were found, or with locality information at a level of precision enabling any deductions about habitat, and thus Jamieson 1974 contains no comments about the ecology of any of the species catalogued.

While it cannot be doubted that Barrie Jamieson carried out a very thorough and scholarly study of the material that was available to him, it is equally clear that there are hazards involved with simply lifting jars of specimens accumulated on museum shelves from random collecting events and treating the material as if it were representative of the fauna. While such a study has allowed some assessment of the taxonomic composition of the local fauna and of its affinities and level of endemism, the authoritative title and tone of the writing in both Jamieson (1974a) and a companion work on Tasmanian earthworm biogeography (Jamieson 1974b) pay scant recognition to the probability that many species were yet absent from these deliberations. Only a very little systematic field collection of earthworms at any time between 1888 and 1970 would have confirmed what the poor quality of the existing collections were yelling out from within their glazed restraints: a comprehensive field survey of Tasmanian earthworms would be an essential first step in any study that aimed to be definitive. Indeed, Barrie Jamieson himself spent 5 days collecting in Tasmania in 1972, after completing the work for his 1974 study. The resulting collection remained largely unstudied until

donated to the Queen Victoria Museum by Barrie Jamieson in 1992. Even though Jamieson sampled only along a few of the main roads, he nevertheless collected several species not included in his published work.

Since 1992 I have been conducting an extensive field survey of Tasmanian earthworms funded under the National Estate Grants Program and a far more accurate picture of the earthworm fauna is at last emerging. With the collection of nearly 2 000 lots of specimens from almost 500 sites we have distinguished over 250 different forms. Despite this tally, many newly visited localities continue to yield additional unique specimens. While accepting that some "lumping" of forms will almost certainly occur once internal morphology is examined, there are also no doubt many additional species to be collected. In contrast to the statistics pertaining to the material available to Jamieson, the great majority of our "species" are represented by at least 50 specimens collected from several sites. Another major difference is that our survey has been comprehensive so that the absence of species from a site is equally valid as the presence of others. Thus there is now the potential with the majority of species to map the distribution with a high level of accuracy and also to describe the full range of morphology associated with maturation.

The largely self-evident lessons from all this are especially relevant to litter, soil or otherwise cryptic and non-charismatic micro-fauna. Useful representations of such groups will never find their way into museum collections without highly focussed extensive collecting and without the use of ideal collecting and curation techniques. While we should be grateful for any good quality taxonomic work performed on such members of such groups, wherever possible this should be preceded by at least a little survey work to provide some understanding of the degree to which the available material reflects the likely magnitude of the total fauna. Finally, the use of such words as "some" or "preliminary" in the titles of papers dealing with fauna having poor numerical or

geographical representation is to be encouraged!

Tim Kingston
Curator of Zoology, QVMAG.

References:

Jamieson, B.G.M. (1974a) The indigenous earthworms (Megascolecidae: Oligochaeta) of Tasmania. Bulletin of the British Museum (Natural History) London 26(4), 201-328 + 102 plates

Jamieson, B.G.M. (1974b) The zoogeography and evolution of Tasmanian Oligochaeta. Chapter VIII (pp. 195-228) in W.D. Williams (editor) Biogeography and Ecology in Tasmania. Dr. W Junk, The Hague 1974.



"Professor LaVonne had many enemies in the entomological world, detective, but if you examine that data label, you'll find exactly when and where he was — shall we say — collected"

Colourful but Puzzling

Argonemertes australiensis

(Dendy, 1889) is the common terrestrial nemertine of Tasmania.

It is about 40 mm long when full-grown and resting comfortably. It looks like an overweight flatworm. It can be found all over the State (even in the Midlands) in the usual moist retreats: rotting wood, deep leaf litter and under stones and loose bark.

If you prod *Argonemertes*, its white proboscis suddenly shoots out from the head end. The proboscis tip then attaches to a firm substrate, retractor muscles are operated and the worm speedily escapes from its

enemy (your finger) by pulling itself along the proboscis, which seems to be 'eaten up' as it inverts (or diverts or something).

Similar behaviour helps *Argonemertes* capture its prey. It probably eats Collembola and terrestrial crustaceans. These have the advantages of legs, a quicker metabolism and a far more sophisticated nervous system, but the nemertine is faster on the draw.

Argonemertes comes in male and female versions. The eggs are laid in a clear, jelly-like mass about 10 mm long and 3 mm in diameter. I've found egg masses in rotting logs in August and March; the latter were collected and hatched out in May.

There's a small but informative literature on *A. australiensis* (see below). The IUCN Red Book says that the terrestrial nemertines are 'Vulnerable' but in Tasmania *A. australiensis* is demonstrably tolerant of habitat disturbances other than clearing for agriculture, plantations or suburbs.

An unresolved question concerns colour varieties. At least three are common around the State: 'Bluehead' (cream with a blue head), 'Mottled' (reddish-tan with irregular red-brown blotches) and 'Striped' (colour as in 'Mottled', but organised into well defined longitudinal bands. All three can be found in the same locality. I sent specimens of the three from Look-out Hill in the Douglas-Apsley to Dr. Janet Moore at Cambridge (UK), who replied that 'they're all exactly the same inside - classical *australiensis*'. But how do these colour forms persist so 'cleanly' in a presumably interbreeding population?

Bob Mesibov
Research Associate

Further reading:

- Hickman, V.V. 1963. Pap.Proc. Roy. Soc. Tas. 97: 63-77 + plates.
Moore, J. 1975. Zool.J.Linn.Soc. 56: 23-43.
Moore, J. 1985. Amer. Zool. 25: 15-21.
Winsor, L. 1985. Vict.Nat. 102: 28-36.

Acantholybas kirkaldyi Bergroth (Hemiptera: Coreidae)

Rediscovered.

On the 7th of September, 1993 a single specimen of a small coreid bug that has not been seen since it was originally described in 1909 was collected in an area near Brooks Bay in southern Tasmania. As the original holotype specimen, thought to be held in a European museum, now appears lost the recently found specimen is believed to be the only one of its kind in the world. Little is known of the biology and ecology of this 10.5 mm long bug which belongs to a tribe of insects (tribe: Colpurni) that has received minimal investigation. Presently, some 15 species are recognised from Australia, 13 of which come from Queensland and 5 from northern New South Wales. *Acantholybas kirkaldyi* is the only species known to occur outside these two states. The species was recently placed on the Parks and Wildlife Service's list of insufficiently known native invertebrates. A paper concerning the find will be published shortly. Further specimens, in particular female specimens, are hoped to be located in order to learn more about this interesting species.

Martin Steinbauer
CRC for Temperate Hardwood

Tasmanian Invertebrate Site Register

The Queen Victoria Museum recently commenced an ambitious project attempting to create a database of all collecting events in Tasmania by all collectors since 1970. Clearly we do not really expect to locate every last record, but at the same time we believe it is feasible to put together a critical mass of records that will have great value in summarising what collecting has been done in the past and as a guide to what needs to be done in the future.

Summarising past collecting is only one aim of the project. The database will be maintained into the future and it is intended that it will become the nucleus for a "Tasmanian Invertebrate Site Register", to which new records will be contributed, as a

formality, by collectors on a regular basis.

The exercise is not intended to be a one-way flow of information - far from it! We will be encouraging people to inquire of the database to find out where specific groups of invertebrates have been collected, or alternatively what groups have been previously collected within a certain area - and to find out where the resulting specimens have been lodged.

Already some very significant achievements have been made. Remember the Lower Gordon Survey? Have you ever seen a list of sites or a list of what was collected during this major biological exercise over three years in the late 1970s? No, nor had we, but Project Officer Bob Mesibov has obtained the original site maps for the survey from the HEC and has extracted the grid reference for each of 214 known collecting localities. From independent sources the database also now contains numerous Lower Gordon Survey records of a variety of invertebrate groups. Put the two together and, for the first time, it begins to be possible to show the distribution of these taxa within the Lower Gordon Survey area, as well as in a wider context. To consolidate the benefits of this process we now of course urgently need feed back from collection managers and taxonomists who have Lower Gordon Survey material under their control so that the results of the survey can continue to be reassembled.

It is our intention that with similar surveys in the future, the Tasmanian Invertebrate Site Register will be used to keep track of material generated. This process has already been initiated for the "Monitoring River Health Initiative" (MRHI) run in Tasmania by the Department of Primary Industries and Fisheries. Under this programme aquatic invertebrates are to be collected at 120 sites across Tasmania, the Queen Victoria Museum will be curating the collections, but more to the point, the subsequent dispersion and the gradual taxonomic upgrading of the collections will be monitored through the Tasmanian Invertebrate Site Register.

Initiation of this project has been made possible by support for the Project Officer in 1994 under the National Estate Grants Program. Once established the database will be maintained by the Zoology Section of the Queen Victoria Museum but will become largely dependent upon the goodwill of collectors for its level of completeness. Options for future funding include seeking a grant through a relevant government programme, or by making a small administrative charge to users of the system.

Tim Kingston

WANTED **Invertebrate locality records for** **Tasmania**

Have you collected terrestrial or freshwater invertebrates in Tasmania since 1970? If you have we would like to hear from you as soon as possible.

On behalf of the Australian Heritage Commission we are collating and mapping all available high quality locality information on Tasmanian non-marine invertebrates. The aim is to summarise information at different levels of content from a general level (where have collectors of different taxonomic groups been?) to the specific (where has each named species been found?).

All information that we accept will be coded to indicate the wishes of the provider on confidentiality, this will be diligently respected. Data will be routinely plotted on the scale of ten kilometre grid squares only, no greater details will be released for any record without the written consent of the data-owner.

All contributors will of course be acknowledged in our report, this section is already shaping up to be a Who's Who of invertebrate specialists!

For more information and contributions please contact either:

Project Officer
Dr Bob Mesibov
P.O. Box 700
Burnie
TAS 7320
Tel. (004) 313428

SYMPOSIUM ON THE BIOGEOGRAPHY OF NORTH EAST TASMANIA

The Queen Victoria Museum, in association with the Plomley Foundation, intends to convene a symposium on 4-6 February 1995 to examine current knowledge relating to the biogeography of north-eastern Tasmania (east of the Tamar and north of the Fingal Valley), to consider the impact of past and current land management and to explore research options in the region for the future. The symposium proceedings will be dedicated to the memory of the late Mr Brian Plomley (1912 - 1994), in recognition of his love of this part of his adopted island, and his commitment to conservation of the natural values of a poorly documented region.

Twenty five speakers have been invited to discuss a wide range of topics relating to the geology, geomorphology, vegetation, flora and fauna of the region. The first and third days will be devoted to presentations and discussions indoors, the second day will consist of a tour of key sites in the north-east guided by some of the symposium speakers. The buses may well make an impromptu stop at the Pipers River Vineyard at the end of this day!

The programme will include a public forum, at which representatives of the major land management authorities and of land-users will speak and be available to discuss their plans for future directions in management of north-eastern land under their control.

If you wish to receive registration details for the symposium please complete the coupon below and send it to

North-east Symposium
Queen Victoria Museum
Wellington Street
Launceston
TAS 7250

Registration costs, including a reception function on the evening before the symposium, morning and afternoon refreshments and lunch on three days, the excursion and a copy of the papers of the proceedings will be \$150. A choice of accommodation style will be organised and will be bookable through the registration application.

Please send me registration details of the BIOGEOGRAPHY OF NORTH-EAST TASMANIA symposium.

NAME:

POSTAL ADDRESS:

Nature of your interest in the north-east region of Tasmania



